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Resistance of an Antarctic cryptoendolithic black fungus to radiation gives new insights of astrobiological relevance

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Abstract

The Antarctic black meristematic fungus *Cryomyces antarcticus* CCFEE 515 occurs endolithically in the McMurdo Dry Valleys of Antarctica, one of the best analogue for Mars environment on Earth. To date, this fungus is considered one of the best eukaryotic models for astrobiological studies and has been repeatedly selected for space experiments in the last decade. The obtained results are reviewed here, with special focus on responses to space relevant irradiation, UV radiation, and both sparsely and densely ionizing radiation, which represent the major injury for a putative space-traveller. The remarkable resistance of this model organism to

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